

FIG. 1

2000050001

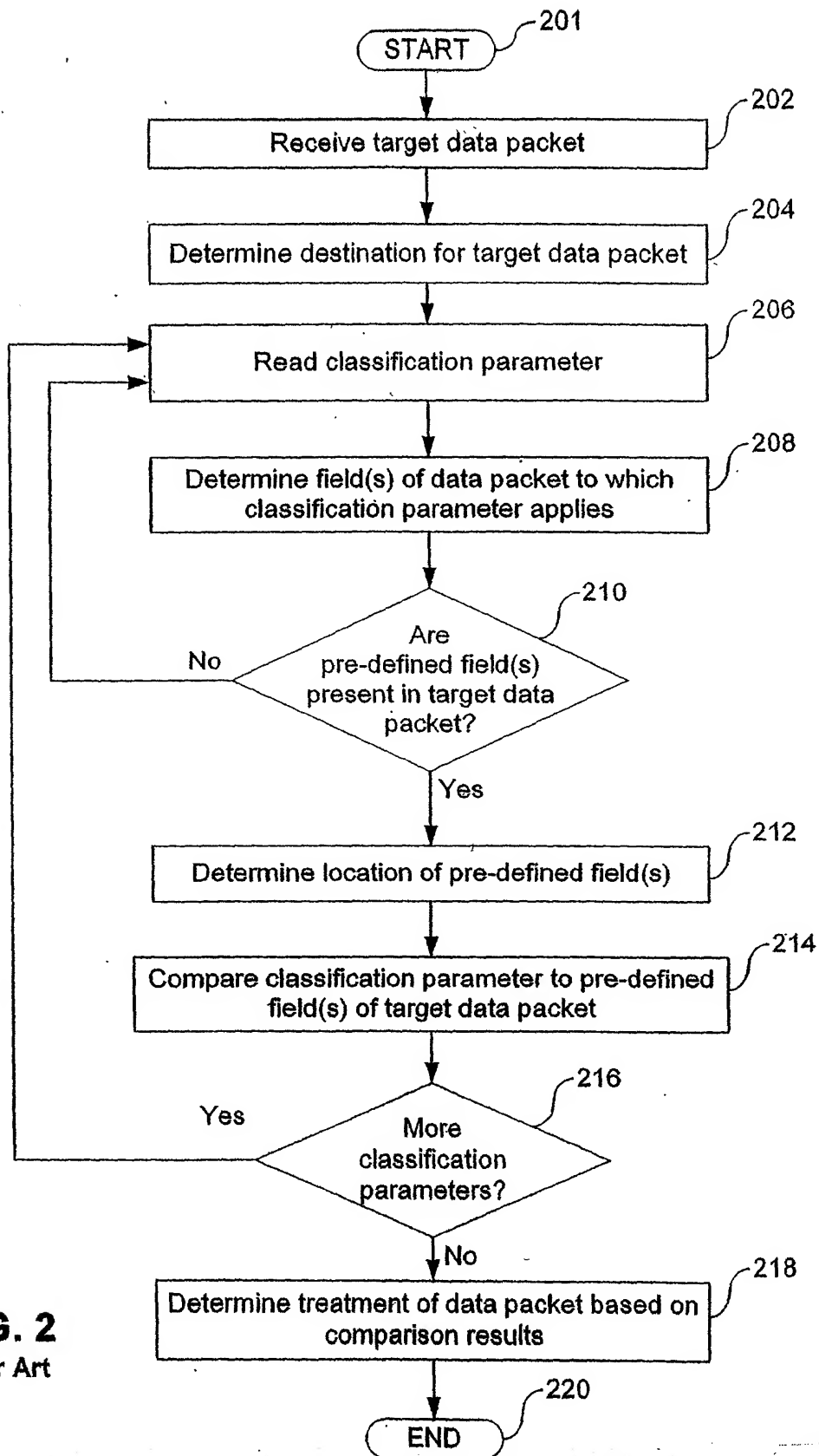


FIG. 2
Prior Art

302

Type	Length	Value	Type	Length	Value	Type	Length	Value	Type	Length	Value	Type	Length	Value	Type	Length	Value	Type	Length	Value	
22	4	Src1	23	4	Smask1	9.5	4	dst1	9.7	2	Sportlow1	9.8	2	Sporthigh1	9.2	2	prot1	...	x	y	z
305 IP Source Address			310 IP Source Mask			315 IP Destination Mask			320 TCP/UDP Source Port Start			325 TCP/UDP Source Port End			330 IP Protocol			335 x			

FIG. 3

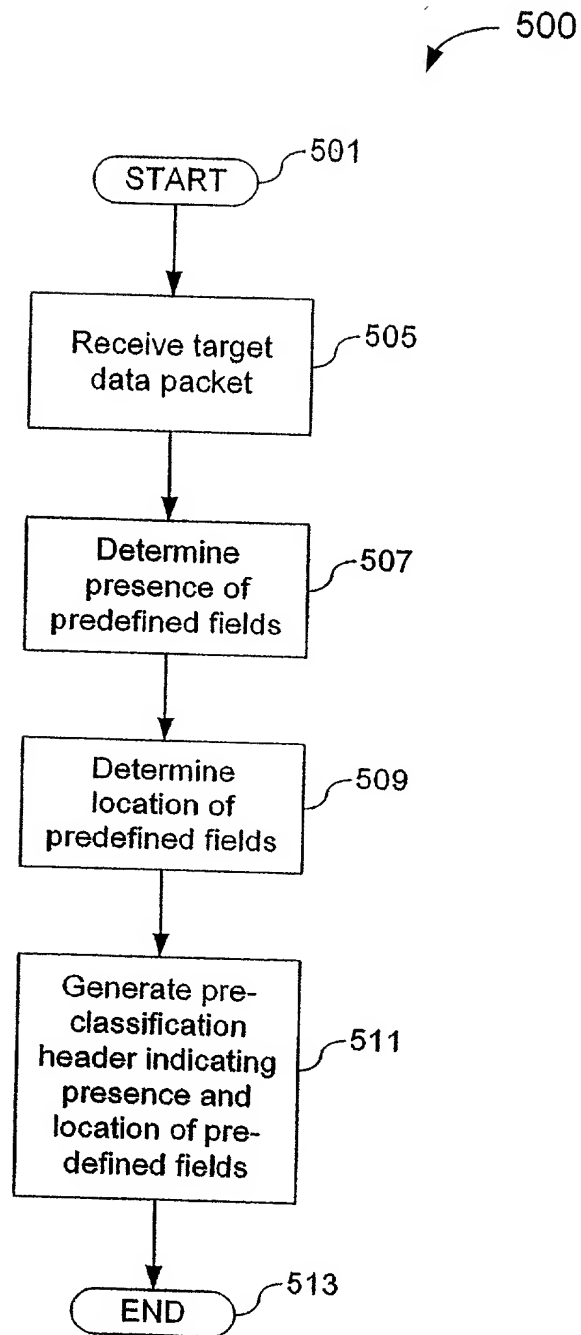


FIG. 5
Pre-classification Flowchart

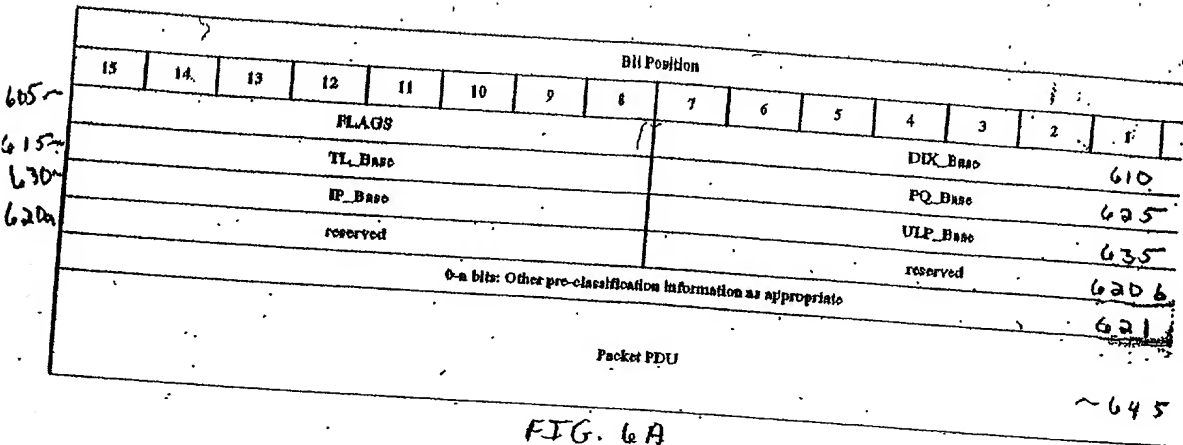


FIG. 6A

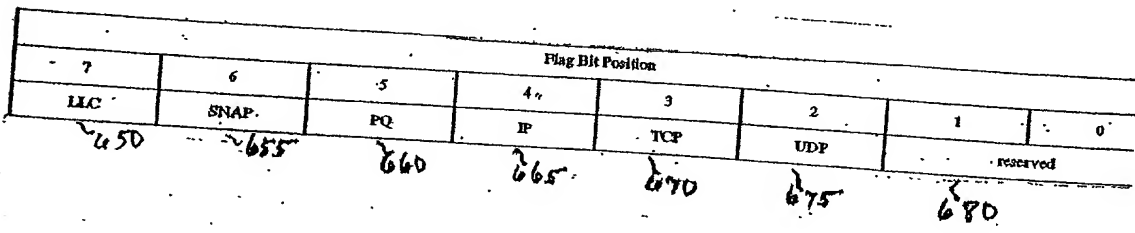


FIG. 6B

700 A
E

		Byte	Byte	Byte	Byte
802.3 Header	DA/SA	00	10	18	01
		02	03	00	10
		18	04	05	06
802.1Q Header	Type/Len	81	00		
	TCI/TL	00	00		
IP Header	V/IHL/TOS/TL	00	00	08	00
	ID/FL/FO	45	00	00	6e
	TTL/PROT/HCS	00	00	00	00
	Src IP Addr	00	25	xx	xx
	Dest IP Addr	01	02	03	04
IP Payload	(90 bytes)	05	06	07	08
		00...			

FIG. 7A

		Byte	Byte	Byte	Byte
802.3 Header	DA/SA	00	10	18	01
		02	03	00	10
		18	04	05	
	Type/Len	00	72		06
802.2 LLC/SNAP Hdr	DSAP/SSAP/Ctl	aa	aa	03	
	OUI	00	10	18	
	TYPE	08	06		
Payload	(106 bytes)	00...			

700C
2

		Byte	Byte	Byte	Byte
802.3 Header	DA/SA	00	10	18	01
		02	03	00	10
		18	04	05	06
	Type/Len	00	72		
802.2 LLC Hdr	DSAP/SSAP/Ctl	00	00	0x73	
LLC Payload	(111 bytes)	00...			

FIG. 7C

		Byte	Byte	Byte	Byte
802.3 Header	DA/SA	00	10	18	01
		02	03	00	10
	Type/Len	18	04	05	06
		00	72		
802.2 LLC/SNAP Hdr	DSAP/SSAP/Ctl	aa	aa	03	
	OUI	00	10	18	
	Type	08	00		
	V/IHL/TOS/TL	45	00	00	6a
IP Header	ID/FL/FO	00	00	00	00
	TTL/PROT/HCS	00	25	xx	xx
	Src IP Addr	01	02	03	04
	Dest IP Addr	05	06	07	08
IP Payload	(86 bytes)	00...			

FIG. 7D

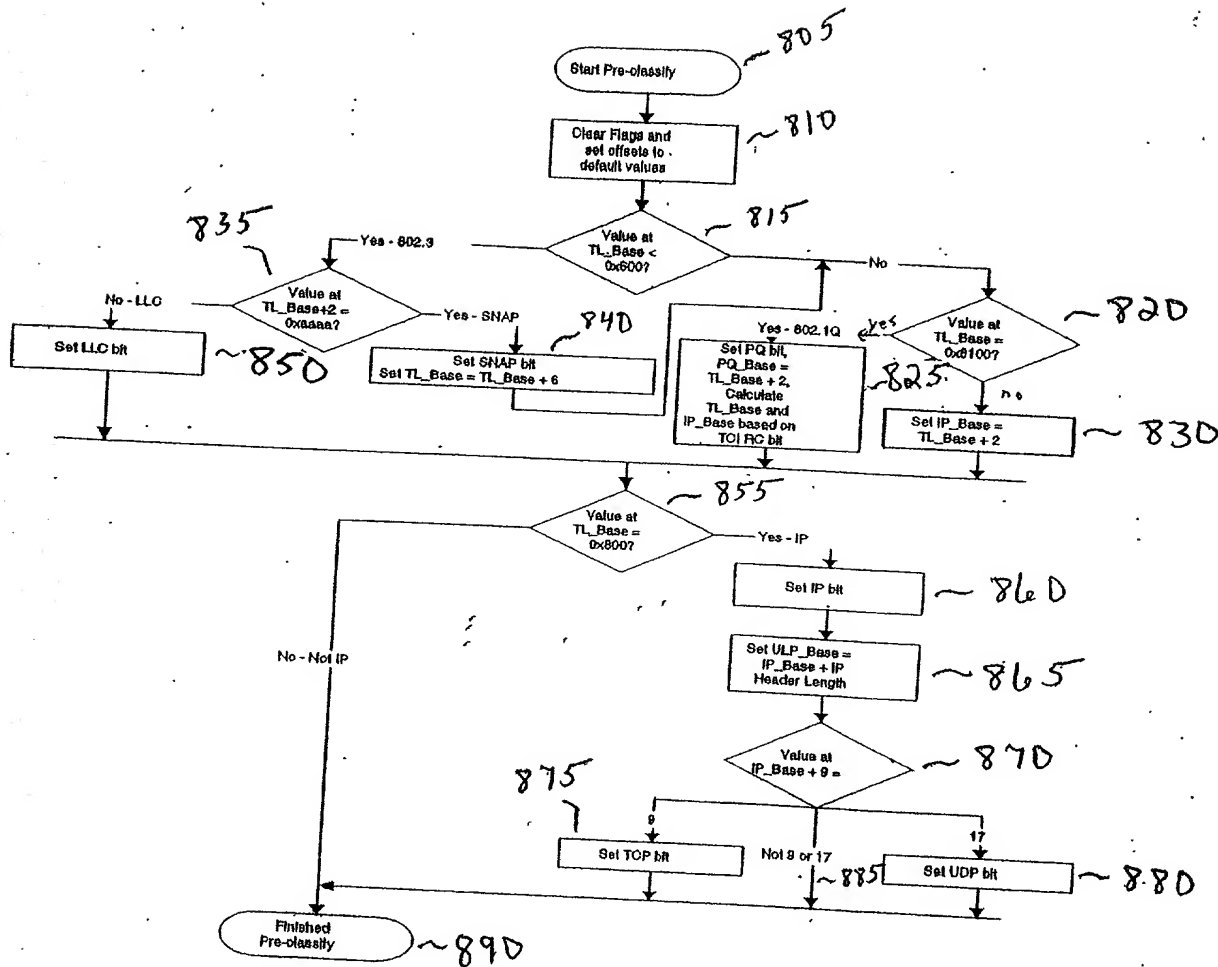


FIG. 8

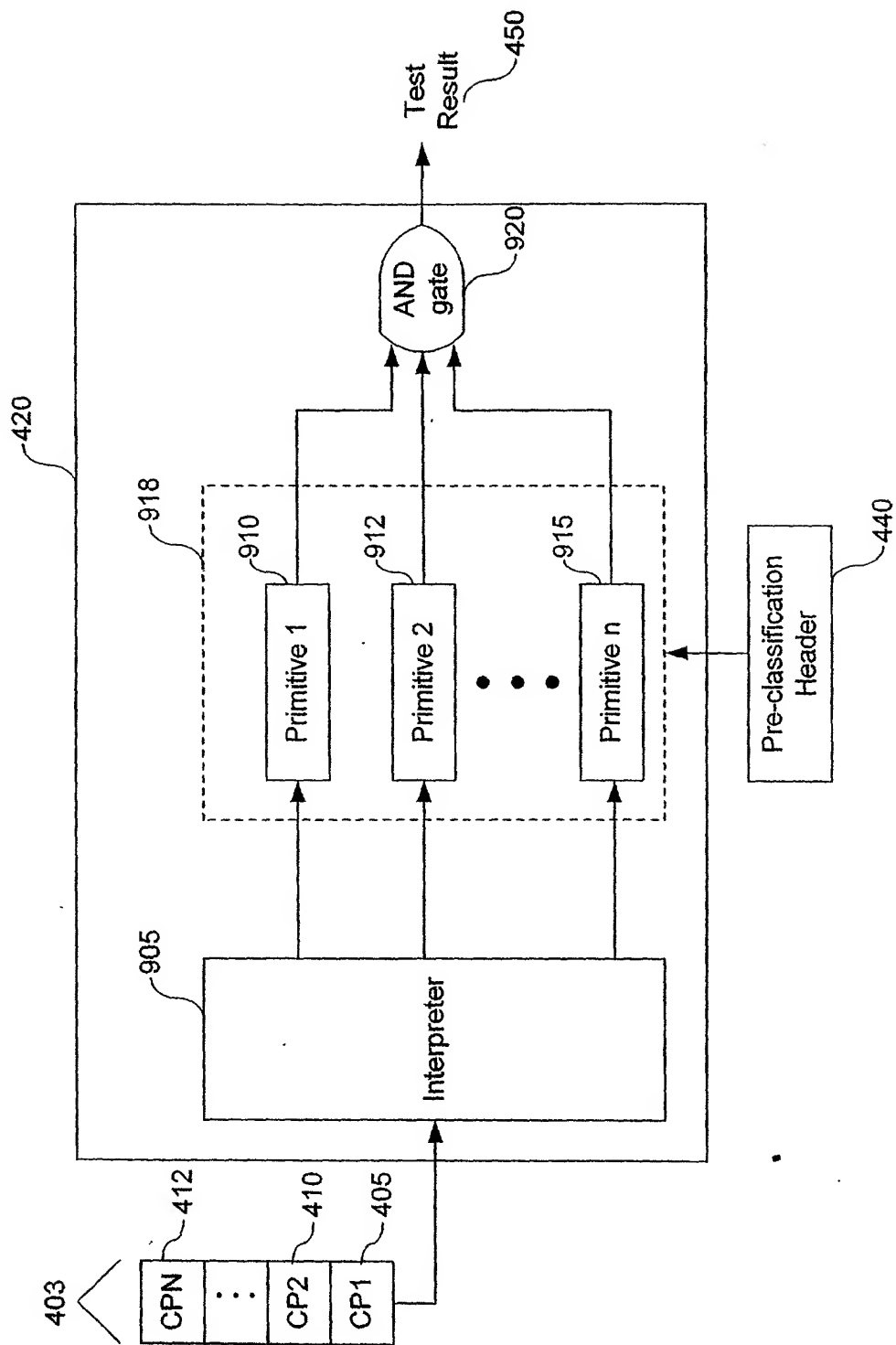


Fig. 9

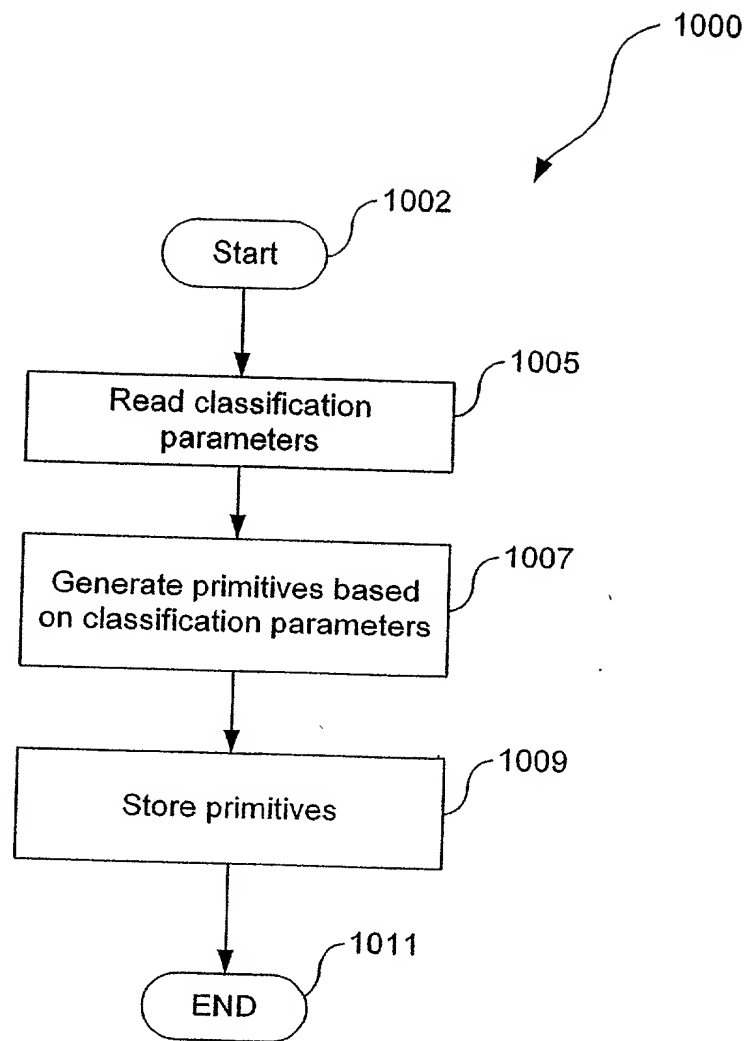


FIG. 10
Primitive Generation

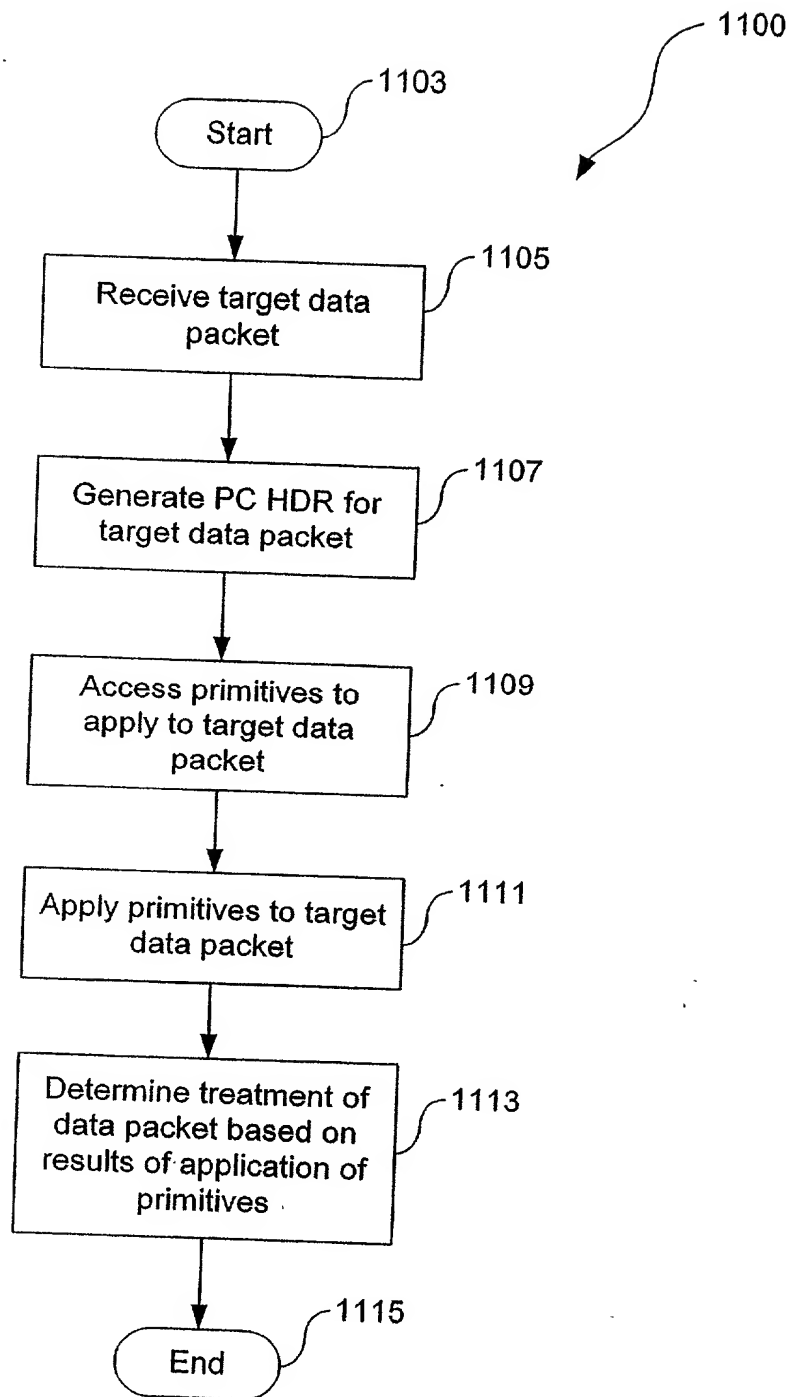


FIG. 11
Test Application

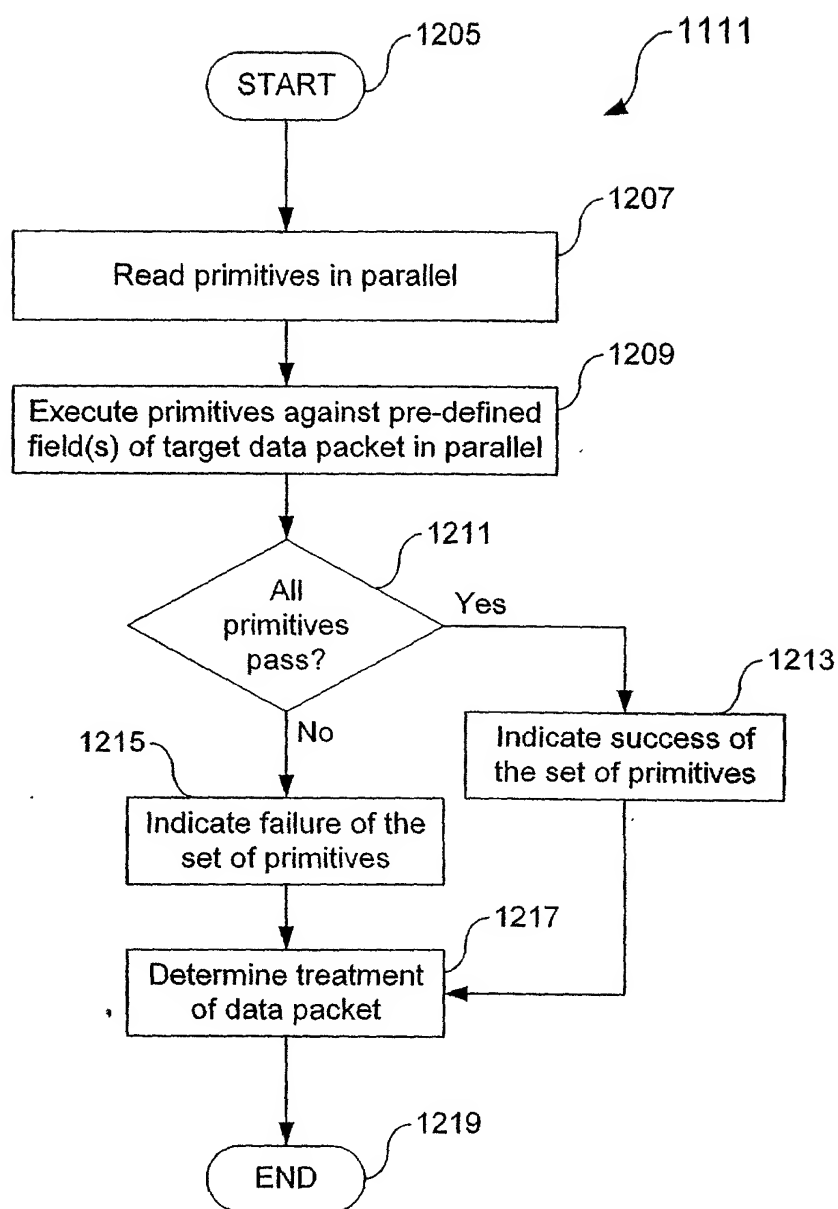


FIG. 12

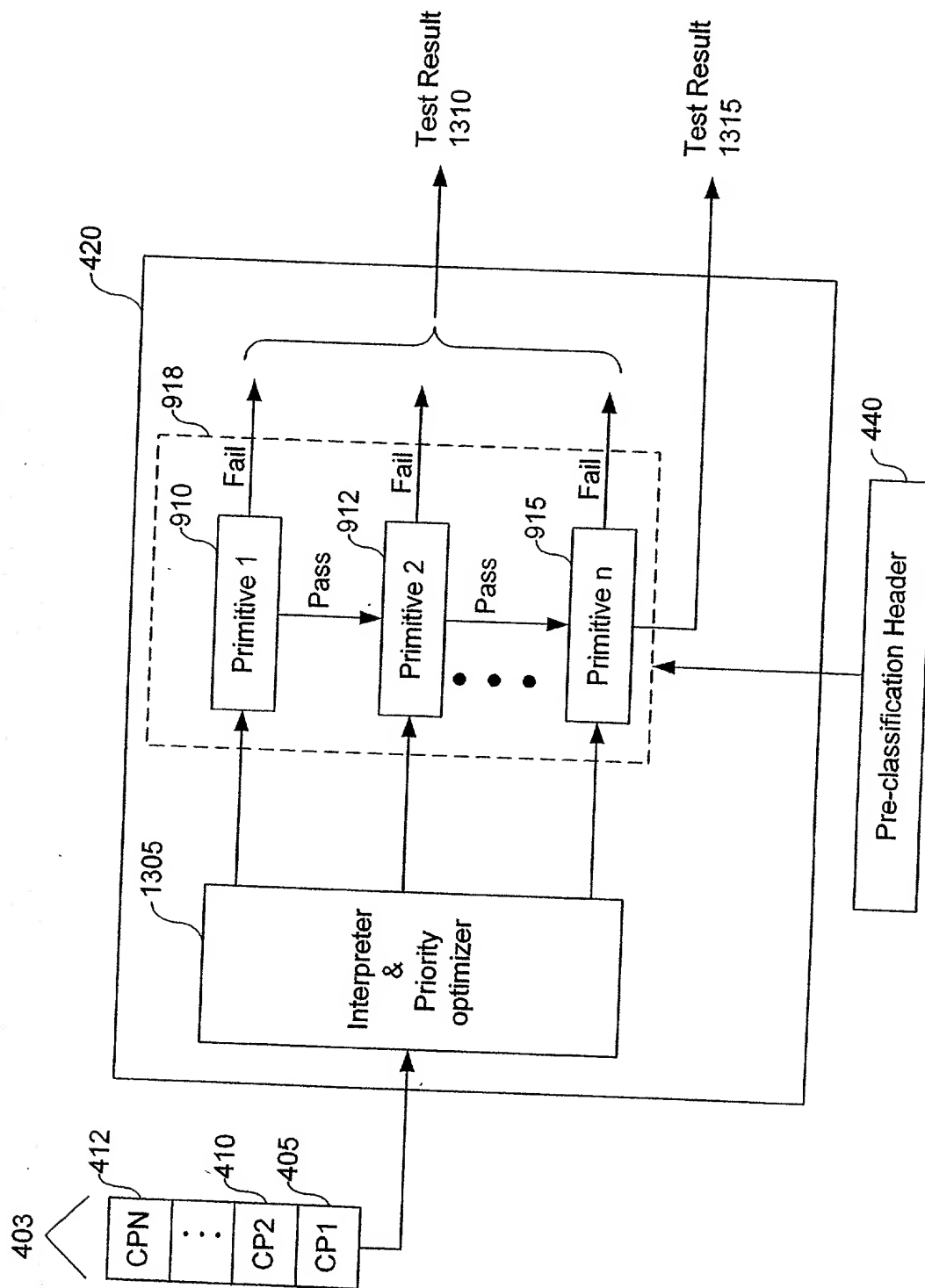


FIG. 13

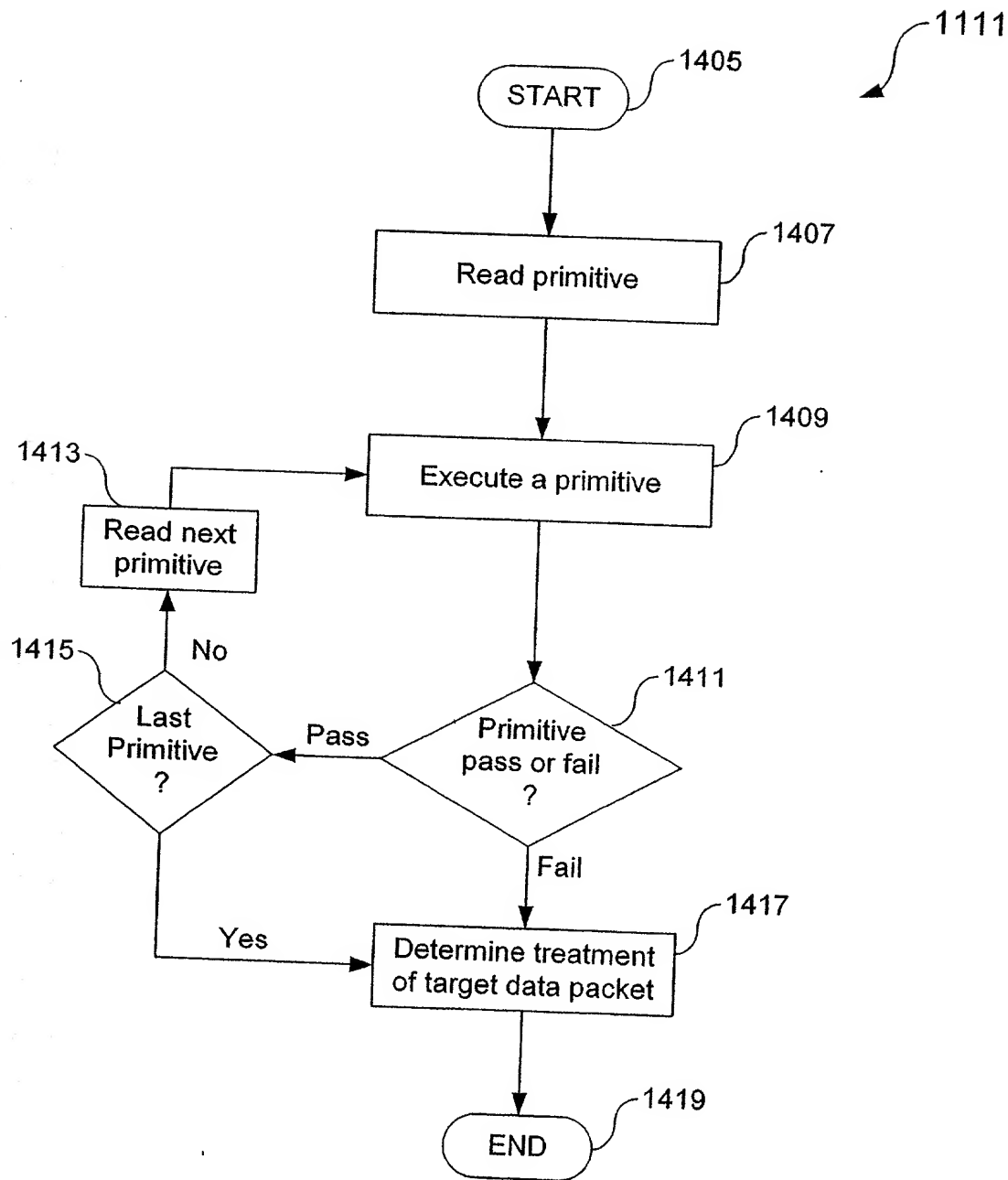


FIG. 14

1501

Byte															
0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
OP	OFFSET	reserved		Operand 1 (mask)				Operand 2 (low bound)				Operand 3 (high bound)			

1525 1540

1545

1500

1530

Fig. 15A

1535

1560

Byte															
0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
OP	OFFSET	reserved		Operand 1 (mask)				Operand 2 (compare value)							

1565 1575

1580

1585

1525/1565

Fig. 15B

1590

Bit Position							
7	6	5	4	3	2	1	0
OP_CODE				BASE_REG			SIZE

1526

1530

1535

Fig. 15C

1500 1501 1502 1503 1504 1505 1506 1507 1508 1509 1510 1511 1512 1513 1514 1515 1516 1517 1518 1519 1520 1521 1522 1523 1524 1525 1526 1527 1528 1529 1530 1531 1532 1533 1534 1535 1536 1537 1538 1539 1540 1541 1542 1543 1544 1545 1546 1547 1548 1549 1550 1551 1552 1553 1554 1555 1556 1557 1558 1559 1560 1561 1562 1563 1564 1565 1566 1567 1568 1569 1570 1571 1572 1573 1574 1575 1576 1577 1578 1579 1580 1581 1582 1583 1584 1585 1586 1587 1588 1589 1590 1591 1592 1593 1594 1595 1596 1597 1598 1599

	1526	1530	1535	1575	1580	1585	1590
	OP_CODE	BASE_REG	SIZE	OFFSET	Reserved	Operand 1	Operand 2
1600	1	MASK	DIX_BASE	A	0	0 X ffffffff0000	0 x 010203040000
1605	2	MASK	DIX_BASE	A	6	0 x ffffffff0000	0 x 090a0b0c0000
1610	3	MASK	IP_BASE	L	12	0 x ffff0000	0 x 78020000
1615	4	MASK	IP_BASE	L	16	0 x ffff0000	0 x 78020000
1620	5	MASK	IP_BASE	B	1	0 x e 0	0 x 00

FIG. 16A

	1526	1530	1535	1575	1580	1550	1555	1560
	OP_CODE	BASE_REG	SIZE	OFFSET	Reserved	Operand 1	Operand 2	Operand 3
1600b	1	BIT	PC_BASE	B	0	Bit MASK 1a	Bit MASK 1b	Bit MASK 1c
1605b	2	BIT	ULP_BASE	L	0	0 x 0010000	0	0 x 0000001
1610b	3	RANGE	PQ_BASE	B	0	0 x e 0	0 x 40	0 x e 0
1615b	4	RANGE	ULP_BASE	W	0	0 x ffff	0 x 151	151
1620b	5	RANGE	ULP_BASE	W	2	0 x ffff	220	250

FIG. 16B

